YERMOLAYEVA, T.A.; BORODINA, M.L.; ABRAMSON, D.L.; SMETANKINA, T.A.; ANUFRIYEVA, N.S.; POTAPOVA, M.P.

Modifying rutile titanium dioxide for the improvement of its physical and technological properties. Lakokras.mat.i ikh prim. no.1:20-25 '62. (MIRA 15:4)
(Rutile)

S/081/62/000/024/030/052
B119/B186

AUTHORS: Yermolayeva, T. A., Borodina, M. L., Abramson, D. L., Smetankina, T. A., Anufriyeva, N. S., Potapova, M. P.

TITLE: Modification of titanium dioxide in the rutile form to improve its physical and technical properties

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24(II), 1962, 903, abstract 24P625 (Lakokrasochn. materialy i ikh primeneniye, no.1, 1962, 20-25)

TEXT: Investigations were made to find modifying substances (MS) for improving the physical and technical properties of titanium dioxide in the rutile modification (rutile) (I), to develop a method of applying MS to the surface of I, and to study the effect of MS on the properties of I. It was found that the effect of MS was much greater when they were mixed with I by additional wet grinding in a ball mill or in an apparatus with stirrer (mixing machine) (adapted for further investigations) than in the dry procedure. I consisting of 70% particles $< 1\mu$, or I in a finely disperse form (with $\sim 85\%$ particles $< 1\mu$) which settles in small

Card 1/2

Modification of titanium dioxide ...

amounts in the filter bags of a Loesch mill, is used for the experiments. MS, like amines of the aliphatic series and other organic compounds, affect only slightly the color intensity, the covering power, and the resistance to air (of I) but reduce the absorption power of moisture by a factor of 1.5 to 2 as well as the settling of I in the finished enamels, and improve the resistance to abrasion. The best results were obtained with 1% addition of alkamon OS -2 (OS-2) (PA), of quaternary ammonium salts of diethyl aminomethyl glycol ethers of higher fat alcohols. An optimum method of modifying I was developed. Solutions of aluminum, silicon, and phosphorus compounds were successively poured, stirring all the time, into an aqueous suspension of disperse I containing 200 g/liter of TiO_2. The washing out is followed by treatment with PA, filtration, drying of the residue, and fine grinding in a jet mill. The best results are obtained by introduction of 2.8% aluminum phosphate with subsequent application of 0.5% PA. The color intensity of I increases by 8-20%, the photochemical activity decreases to 1/3 - 1/4 (literally: by the 3-4 fold), the resistance to abrasion is improved. The resistance of the coat to chalking is doubled. [Abstracter's note: Complete translation.]

Card 2/2

DENISOV, Artem; POTAPOVA, M.S., red.

[Formula of the unexplored] Formula neizvedannogo. Moskva, Sovetskaia Rossiia, 1965. 71 p. (MIRA 18:3)

POTAPOVA, M.S.

Age of Kur'ya limestones in the northwestern Gornyy Altai in connection concerning the article of N.V. Litvinovich and M.M. Smelovskaia. Izv. vys. ucheb. zav.; geol. i razved. 3 no. 10:124-126 O '60. (MIRA 13:12)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Altai Mountains--Limestones)

Potapova, N.

L-2

USSR , Cultivated Plants

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22683

Author : Potapova, N.

Inst : Not given

Title : Corn at the Alma-Atinsk Selection Station

Orig Pub : Kazakstannin auil sharuashilifi, S. kh. Kazakhstana, 1955, No 11, 58-60

Abstract : Beginning in 1942 selection work on corn were conducted on the Alma-Atinsk selection station. The main methods during initial years were the free pollination of the best varieties and the selection of the largest cobs with high quality grains from the hybrid samples. By this method of cross-pollination of Sterling, White Local, Improved Combat and extra Minnesota 13 varieties, F.N. Kuksenko the selector

Card : 1/3

USSR / Cultivated Plants

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22683

Abstract : created a variety Alma-Atinskaya 236, assigned to districts in 1950 for irrigated soils of the Alma-Atinsk, Talda-Kurgansk and Dzhambulsk regions. The Alma-Atinskaya corn 236, a high-stemmed variety, well foliated, with large, white, toothlike grains, ripens in a period of 125-130 days. Beginning in 1949, experiments were conducted on the Alma-Atinsk station on the choice of the best parental forms for obtaining highest producing hybrids. 60 combinations were tested; as parental forms, the local varieties of the white starchy corn and the best varieties of native and foreign selections were taken. The best results were obtained from hybrid 19 (Sterling X Extra Minnesota 13), 5 (extra Minnesota 13 X White Local) and hybrid 33 (Liming X Sterling).

Card : 2/3

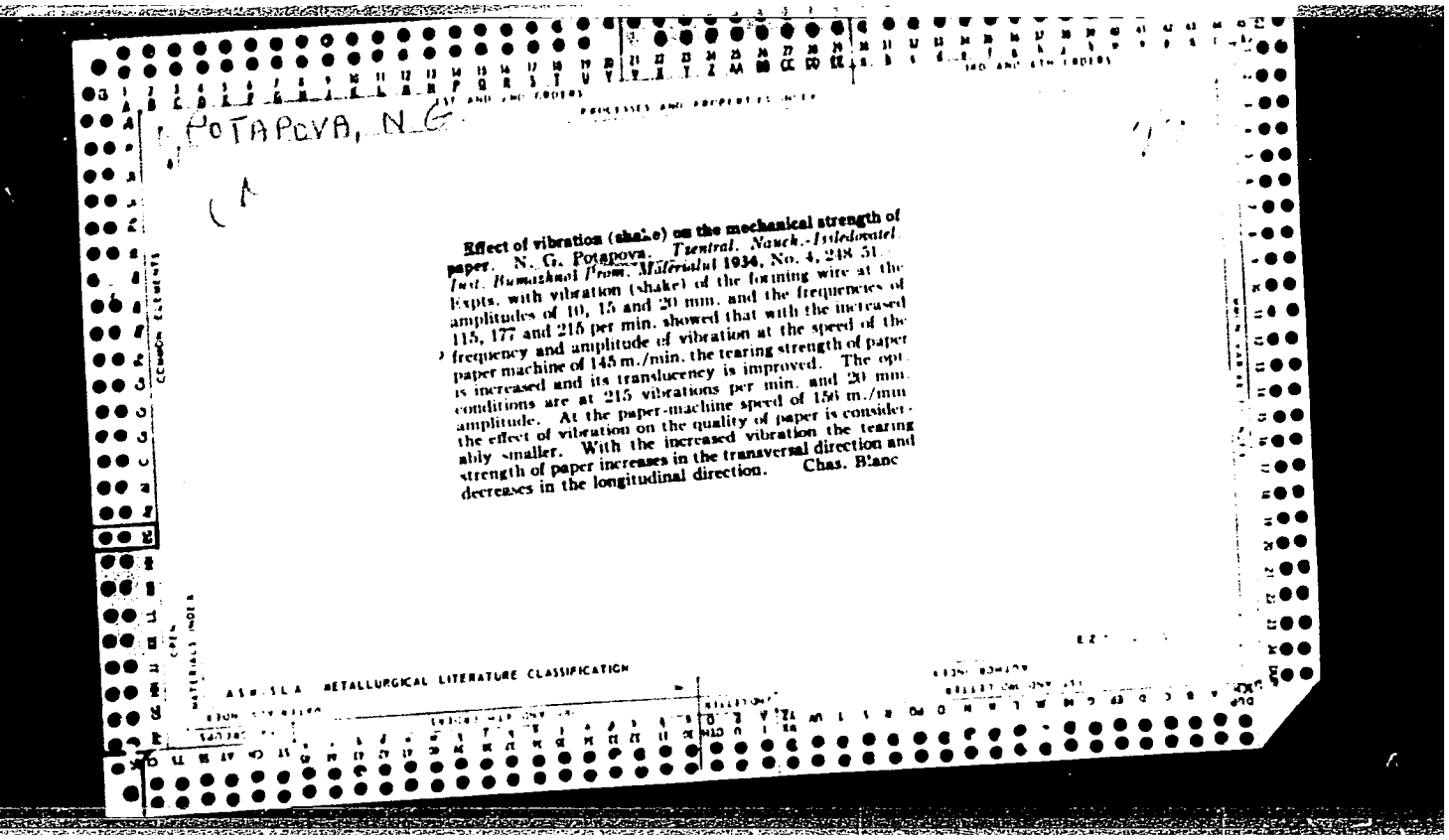
USSR / Cultivated Plants

I-2

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22663

Abstract : Large-scale corn seed-producing is being conducted at the station; elite seeds of Alma-Atinsk 236 are being cultivated, and cross-pollination of varieties is being conducted. The hybrid seeds obtained will be distributed to collective farms.

Card : 3/3



POTAPOVA, N.G.

Effect of vibration (shake) on the mechanical strength of paper. N. G. Potapova. *Tsentral. Nauch.-Issledovatel. Inst. Bumazhnoi Prom. Materialui* 1934, No. 4, 248-51. Expts. with vibration (shake) of the forming wire at the amplitudes of 10, 15 and 20 mm. and the frequencies of 115, 177 and 215 per min. showed that with the increased frequency and amplitude of vibration at the speed of the paper machine of 145 m./min. the tearing strength of paper is increased and its translucency is improved. The opt. conditions are at 215 vibrations per min. and 20 mm. amplitude. At the paper-machine speed of 156 m./min. the effect of vibration on the quality of paper is considerably smaller. With the increased vibration the tearing strength of paper increases in the transversal direction and decreases in the longitudinal direction. Chas. Blanc

80795

SOV/169-59-6-6451

9.9100

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 6, pp 150 - 151 (USSR)

AUTHORS: Ben'kova, N.P., Potapova, N.I.

TITLE: The Variability of the Ionosphere Parameters

PERIODICAL: Dokl. 7-y Nauchn. konferentsii, posvyashch. 40-letiyu Velikoy Oktyabr'sk. sots. revolyutsii. Nr 2, Tomsk, Tomskiy un-t, 1957, p 82

ABSTRACT: The statistical analysis of the fluctuations of the hourly values of f_oF2 ($\triangle f_oF2$) has shown that the distribution of $\triangle f_oF2$ obeys a normal law during days with a quiet ionosphere; the dispersion has a diurnal and a seasonal course and depends on the solar activity. It was established that $\triangle f_oF2$ varies in the course of 5 - 10 min by not more than 0.2 Mc and $\triangle h'F2$ does not exceed 20 km. The spatial variability of $\triangle f_oF2$ is characterized by the correlation coefficient

Card 1/2

L 10903-67 EWT(d)/EWT(l)/EWT(m)/EWP(w)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) 42

ACC NR: AR6022143 IJP(c) JD/EM SOURCE CODE: UR/0276/66/000/002/B086/B086

AUTHOR: Shmanev, V. A.; Potapova, N. I.; Bakal, V. V.

TITLE: Investigation of the state of the surface layer in milling compressor blades

SOURCE: Ref. zh. Tekhn mashinostr, Abs. 2B650

REF SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 20, ch. 1, 1965, 79-89

TOPIC TAGS: compressor blade, surface layer, milling, residual stress

ABSTRACT: Residual stresses were observed in the surface layers of the blades after milling leading to their eventual failure. The causes of residual stresses are nonuniform plastic deformations in the surface layer of the blades. To improve the quality of the surface layer and to increase the milling efficiency, two methods are recommended for milling airfoil using OF-31 and the 4F PL lathes: 1) by a single transverse line, or 2) by two narrow longitudinal lines. Milling with the OF-31 lathe produces compressive residual stresses $\sigma = -75$ kg/mm^2 whose penetration depth is 50 to 200 μ. In milling with the 4F PL lathe in the upper part of the surface layer, there occur tensile residual stresses with $\sigma = +40$ kg/mm^2, which at the depth of 20—40 μ turn into compressive residual stresses with $\sigma = -30$ kg/mm^2 at a penetration depth of 180 μ. The degree of work hardening for the

UDC: 621.914.1.001.5

Card 1/2

POTAPOVA, N.I.; SHAPIRO, B.S.

N(h) profiles of the ionosphere over Moscow during the ionospheric magnetic disturbance in November 1960. Geomag. i aer. 3 no.1:63-72 Ja-F '63. (MIRA 16:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

(Moscow—Magnetic storms—1960 (November))

ACC NR: AP7002188 SOURCE CODE: UR/0203/66/006/006/0125/0131

AUTHOR: Potapova, M. I.

ORG: Institute of Terrestrial Magnetizm, Ionosphere and Radiowave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Planetary distribution of variability of F2-layer maximum electron density

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1025-1031

TOPIC TAGS: ionospheric electron density, ionospheric inhomogeneity

ABSTRACT: The variability of the f_0F2 was investigated using data pertaining to the range of quartilles (i.e., the frequency interval which is centered in respect to the median value, which includes one-half of f_0F2 values). Charts of variations in the maximum electron density (N_m) of the F2 layer (VN_mF2) for three seasons during the IGY and IQSY period were plotted on the basis of data from various stations located at 75—100°W and 70—150°E longitude. It was concluded on the basis of obtained data that: 1) during day hours of years of high solar activity VN_m is less than 20% (10—15%) during all seasons in a broad latitude range. During years of low solar activity VN_m is approximately 20—30%. 2) At high

Card 1/2 UDC: 550.388.2

ACC NR: AP7002188

latitudes during periods of high solar activity, during the equinox, and during winter, an increase in N_m variability was observed; the value of VN_m during the same periods reached 100%. 3) A narrow region with increased N_m variability appears at the magnetic inclination I = 30—35° during years when there is high solar activity in the winter hemisphere during night hours. Variability of N_m at I = 30—35° increases during night hours at the equinox. During pre-morning hours, the region of increased variability is almost symmetrical in respect to the inclination of the equator. 4) During years of low solar activity at I = 35° the variability anomaly remains, and the region of increased N_m variability at the inclination of the equator broadens considerably. [WA-03]

UDC: 550.388.2

SUB CODE: 04/ SUBM DATE: 01Jul65 ORIG REF: 004/
ATD PRESS: 5113

Card 2/2

L 54985-65 EWT(1)/FCC/EWG(v)/EEC(t)/EEC-4/EWA(h) Po-4/Pe-5/Pq-4/Pae-2/Peb/Pi-4

ACCESSION NR: AP5010281 UR/0203/65/005/002/0355/0356 RB/GW/WS-4

550.388.2

44
43

AUTHOR: Potapova, N. I.

TITLE: Magneto-ion splitting of a radio signal in the E and F layers of the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 2, 1965, 355-356

TOPIC TAGS: magneto-ion splitting, ionospheric radio propagation, ionospheric F layer, gyrofrequency, ionospheric E layer, radio signal splitting

ABSTRACT: The author points out that magneto-ion splitting is always observed in the F_2 and F_1 layers except during periods of particularly acute perturbations (high degree of diffusion or scattering). In the E layer, splitting is observed in far from all cases, although under certain specific conditions, three magneto-ion components are discovered. In the present brief report, the author presents some information on magneto-ion splitting obtained through the proce ing of data obtained by ionospheric stations of the SSSR during the 1948-1949 period. Splitting and gyro-frequency in the E and F layers are discussed and it is noted that usually only one - the ordinary - component of a signal reflected from the E layer is detectable by medium-latitude ionospheric stations. In some cases, two components are detected: the ordinary (0) and the extraordinary (x). Values for Δf ($\Delta f = f_x - f_0$) are given and analyzed for different ionospheric stations (Krasnaya Pakhra, Irkutsk, Moscow,

Card 1/3

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ACCESSION NR: AP5010281

etc.), theoretical equations are derived, and comparisons are made between calculated and empirical data. Some conclusions are drawn regarding the distribution of f_H (where H is the magnetic field intensity) as a function of height and the season of the year. A graph is given showing the noon and midnight values of f_H (in Mc) as a function of height, calculated on the basis of the $f_X - f_0$ difference and obtained through the processing of readings at Irkutsk, Krasnaya Pakhra, Alma-Ata, Rostov-on-Don, Tomsk, and Sverdlovsk. It is clear from this graph that f_H, computed by Δf_0F_2, exceeds the theoretically calculated values almost everywhere, with deviations from the theoretical values being as great as 15%. The differences between f_H values computed on the basis of ionospheric data and those found theoretically are considerably less for the E layer than for the F2 layer. The results derived from the analysis of magneto-ion splitting in the 1948-1949 period on the basis of material furnished by stations of the SSSR for the F2 layer are found to be in good agreement with the data given by other authors. A computation of a number of recordings, made to verify certain of the postulates advanced in this paper, confirmed the statements of C. V. Scott (J. Geophys. Res., 1951, 56, No. 1) in this same area. Orig. art. has: 1 figure and 3 formulas.

Card 2/3

L 54985-65

ACCESSION NR: AP5010281

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute for Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR)

SUBMITTED: 12May64 ENCL: 00 SUB CODE: EC

NO REF SOV: 002 OTHER: 002

Card 3/3

POTAPOVA, N.I.

Magnetoionic splitting of a radio signal in the ionospheric E and F layers. Geomag. i aer. 5 no.2:355-356 Mr-Ap '65. (MIRA 18:7)

POTAPOVA, N.I.; YUDOVICH, L.A.

Electron density distribution with normal and anomalous ionization in the subarctic region. Geomag. i aer. 4 no.5:850-860 S-O '64. (MIRA 17:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

L 9978-65 EWT(l)/EWG(v)/EOC/EEC-4/EEC(t)/EWA(h) Po-4/Pe-5/Pq-4/Pae-2/Peb/
Pi-4 RAEM(a)/AFWL/ESD(c)/SSD/ESD(t) GS/WS
ACCESSION NR: AP4046293 S/0203/64/004/005/0951/0954

AUTHOR: Potapova, N.I., Shevko, M.L.

TITLE: Height of the sporadic E layer B

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 5, 1964, 951-954

TOPIC TAGS: ionosphere, upper atmosphere, ionospheric E layer, sporadic E layer

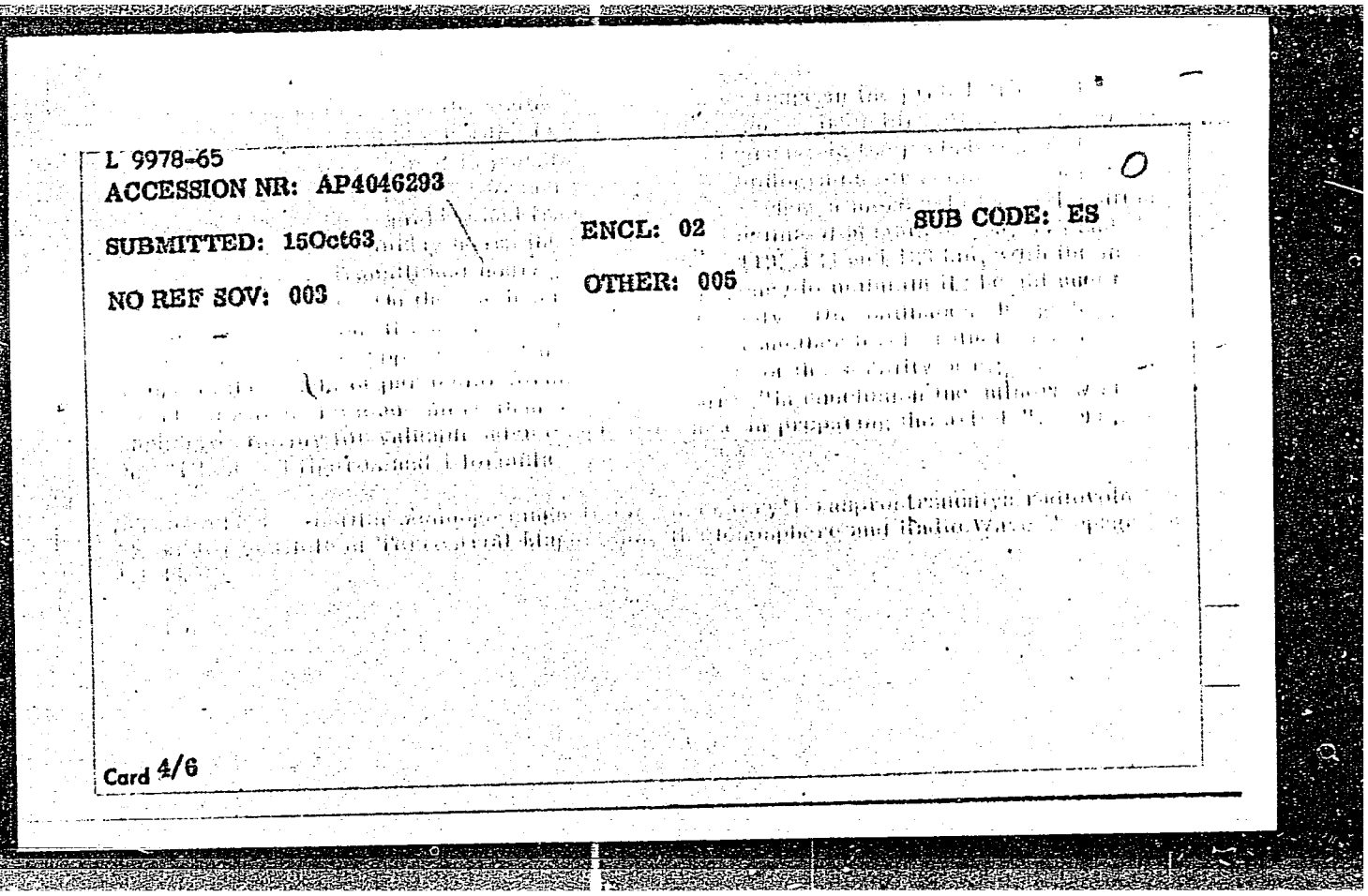
ABSTRACT: A study has been made of the height of the E_s layer of the ionosphere on the basis of data obtained by vertical sounding. The investigation was largely concerned with the two daytime types observed near the maximum of the E layer (types c and h). In contrast to other types of E_s (1, f), for the two mentioned types there is a great difference between the virtual (h') and true (h) heights. A study was made of N(h) - profiles on Regular World Days and also on 10 magnetically quiet days in each season during the IGY period at Moscow. The determined diurnal variation of the median values hE_s (true height of reflection from E_s), as indicated by 1957-1958 data for different seasons, is shown in Fig. 1 of the Enclosure. In the summer the maximum hE_s were observed in the morning and evening hours and the minimum during the daytime. At the equinoxes the diurnal variation also shows a tendency to an increase of E_s in the morning and

Card 1/6

evening hours. In winter there is a clearly defined h_{E_s} variation with a maximum near midday. The medium distributions of ionization in the E region were determined for 1100, 1200 and 1300 hours (LT) and compared with the height of E_s during this period. It was found that the considered types of E_s occurred for the most part at heights where the electron density was more than 80% of the maximum electron density for the E region. The E layer in summer is lower than in winter and since E_s of types c and h is formed near the maximum of the E layer, the rise near midday in the seasonal variation in winter apparently can be attributed to the seasonal change of the height of the E layer maximum. In summer, at midday, when the E layer is lower, E_s is formed at lesser heights; in winter, with a greater height of the E layer, the height of E_s increases. In order to determine the probability of the appearance of E_s at a particular height histograms were constructed showing the distribution of h_{E_s} at all hours of the day for different seasons. Fig. 2 of the Enclosure shows histograms for all hours (including disturbed periods) for summer (top), equinox (middle) and winter (bottom). The most reliable histogram for summer shows not only a principal maximum at heights of 100-105 km, but also an increase in the probability of the appearance of E_s at heights

of 113, 121 and 129 km. At the equinox there is an increase in the probability of the appearance of E_s at heights of 107, 113, 119 and 125 km. It is difficult to draw reliable conclusions for winter, but it is possible to note an increase in the probability of the appearance of E_s at heights of 107 and 129 km. The histograms for summer, constructed separately for the near-midday and transitional hours, show a more detailed distribution of hE_s. At the near-midday hours there are clear maxima at heights of 103, 113 and 121 km, and at the transitional hours — at 101, 105, 119, 123 and 128 km, with the main maximum at 109 km. On the one hand, E_s has a tendency to maintain its height under certain conditions, but it can also change discontinuously. Discontinuous change hE_s may be caused by the appearance of new formations at another level, rather than a change in the height of particular formations. A study of the stability of hE_s would require that observations be made more than once each hour. "In conclusion the authors wish to thank T.S. Kerbly for valuable advice and assistance in preparing the article". Orig. art. has: 1 table, 3 figures and 1 formula.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery*i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR)



L 9978-65
ACCESSION NR: AP4046293

SUBMITTED: 15Oct63 ENCL: 02 SUB CODE: ES

NO REF SOV: 003 OTHER: 005

Card 4/6

ENCLOSURE: 01

ACCESSION NR: AP4046293

L 9978-65

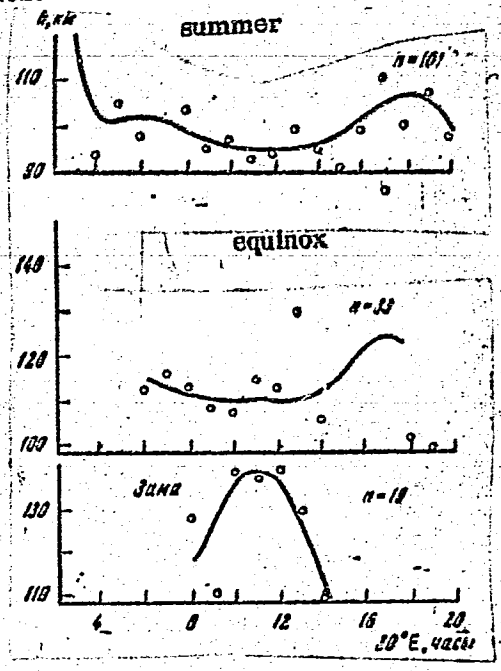


Fig. 1.

Diurnal variation in the median values h_{Eg}.

Card 5/6

L 9978-65
ACCESSION NR: AP4046293

ENCLOSURE: 02

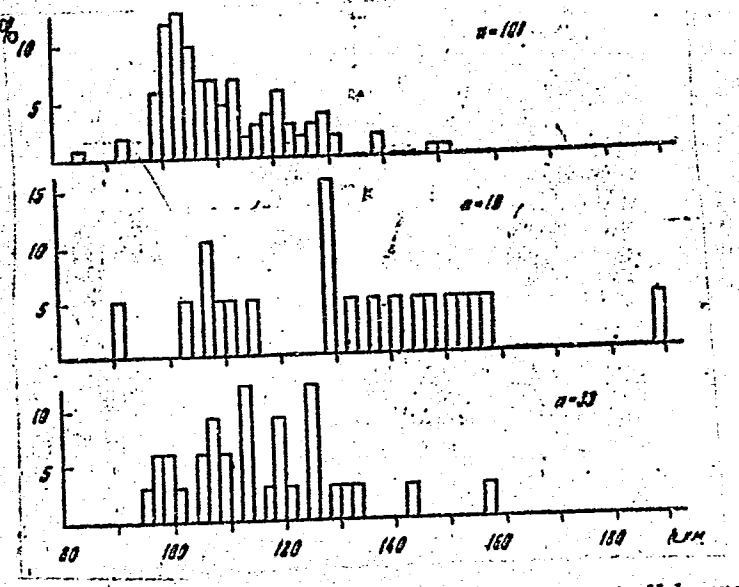


Fig. 2. Histograms showing the distribution of h_{Es} with height at all hours of the day for summer (top), equinox (middle) and winter (bottom).

Card 6/6

S/904/61/000/000/011/011
D218/D308

AUTHORS: Ben'kova, N. P., and Potapova, N. I.

TITLE: An effect of atomic explosions on the ionosphere

SOURCE: Doklady Nauchnogo simpoziuma po ionosfere, Rostov-na-Donu, 21-22 aprelya 1960 g. V razdel programmy MGG (ionosfera). Rostov on the Don, Izd-vo Rostov. univ., 1961, 127-132

TEXT: Results taken from the World Data Center were used to investigate ionospheric disturbances of non-solar origin during the 1958 nuclear tests over the Pacific and Atlantic Oceans. It was found that the explosion set off on August 1, 1958, had an appreciable effect on the ionosphere. It gave rise to an increase in the absorption in the lower ionosphere, a reduction in the ionization in the F layer, and a considerable variation in its height. Ionospheric effects were detected at distances up to about 6000 km from the epicenter. The effects of the explosion

Card 1/3

An effect of...

of August 12, 1958, were investigated in a similar way. Here, the effects were somewhat different. Thus, at a distance of 1500 km from the epicenter there was a considerable increase in the absorption by the F2 layer 6 hours after the explosion. An initial reduction in the effective height of the F layer was followed by a rise above the normal level. At 4500 km there was also an initial reduction and a final rise in the effective height. At 6200 km (Brisbane), there was a tendency to a wave-like change in the effective height. At 7200 km the effective height increased up to 350 km, but no effects were observed in the critical frequencies. Finally, at San Francisco, there were no observable ionospheric effects. Estimates were made of the velocity of propagation of the ionospheric disturbances by dividing the distances from the point of explosion by the delay time. All the velocities were found to lie between 0.71 and 1.1 km/sec. Since the velocities of propagation were found to be the same in all directions, it is suggested that the disturbances propagated together with a shock wave which carried

S/904/61/000/000/011/011
D218/D308

An effect of...

electromagnetic energy. There are 3 figures and 3 tables.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, AS USSR)

Card 3/3

45211
S/203/63/003/001/008/022
A061/A126

9,9842

AUTHORS: Potapova, N. I., Shapiro, B. S.

TITLE: The N(h) profiles of the ionosphere over Moscow during the magneto-ionospheric disturbances in November 1960

PERIODICAL: Geomagnetizm i aeronomiya, v. 3, no. 1, 1963, 63 - 72

TEXT: The variations of the parameters of N(h) profiles over Moscow in the November 1960 disturbances are compared with the variations of July 1959. The N(h) profiles were performed on the "Strela" digital computer using the integral method. The following results are collected in three bulky diagrams: 1) The variation of ionization with time at altitude intervals of 20 km, and the variations of ionization maxima. 2) Variations of the altitudes for given N/N_m ratios (N denoting ionization, N_m the ionization maximum). 3) Deviations of the parameters from a given profile. The results are discussed to show that the general character of the variations of ionization in middle latitudes during intense magneto-ionospheric disturbances is about the same both in winter and in summer.

Card 1/2

44526

S/831/62/000/010/005/013
E032/E414

AUTHOR: Potapova, N.I.

TITLE: On the E_s at a middle latitude and a polar station

SOURCE: Ionosfernyye issledovaniya. Sbornik statey, no.10. V razdel programmy MGG (ionosfera) Mezhdur. geofiz. kom. AN SSSR. Moscow, Izd-vo AN SSSR, 1962. 34-47

TEXT: IGY data for the sporadic E-layer obtained at Sverdlovsk and Salekhard are reported. Seasonal and diurnal changes in the frequency of occurrence of the E_s layer were determined. High ionization was considered to occur whenever

$$\frac{f_oE_s + f_bE_s}{2} - f_oE \geqslant 1 \qquad \text{(day)}$$

and

$$\frac{f_oE_s + f_bE_s}{2} \geqslant 2 \qquad \text{(night)}$$

All other cases were regarded as corresponding to low ionization. In the above expressions f_oE_s is the critical frequency and f_bE_s the blanketing frequency. The frequency of occurrence of

Card 1/3

high-intensity ionization, as recorded at Sverdlovsk, was found to exhibit the following features: 1) high-ionization type-c layers have two maxima in the summer - one in the morning and one at approximately 20 h local time; in the winter months and near the equinox these layers are rarely encountered, 2) the frequency of occurrence of type-ℓ layers with high ionization reaches a maximum at sunrise and sunset and a minor maximum is observed at mid-day, 3) the frequency of occurrence of type-f layers of ionization has a maximum in the summer (after sunset). The frequency rapidly decreases in the winter and the maximum in the diurnal curve is observed immediately after sunset. The frequency of occurrence of low-ionization E_s layers at Sverdlovsk exhibits the following features: 1) the form of the diurnal variation of type-c layers is the same as above, 2) in most cases, the type-c frequency maximum for low-ionization layers occurs earlier than the corresponding maximum for high-ionization layers by 2 to 4 h, 3) the frequency maximum for type-ℓ layers occurs at sunrise and sunset as above, 4) the type-ℓ low-ionization layers occur more frequently than

41187
S/169/62/000/009/116/120
D228/D307

9.9110

AUTHORS: Likhachev, A. I. and Potapova, N. I.

TITLE: Latitudinal relationship of the diurnal ionization increase in the F2-layer

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 21, abstract 9G165 (Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, no. 38, 1960, 38-46)

TEXT: The diurnal ionization increase in the F2-layer from the morning minimum to the noon maximum is calculated from the data of measurements at 40 stations, which carried out vertical ionospheric sounding. It is shown that the increase's variation during the year proceeds in accordance with the change in the sine of the sun's zenith angle. The latitudinal distribution of the increase in the southern hemisphere is the mirror image of that in the northern (relative to the magnetic equator and the solstice periods). It is shown that in periods of the equinox the increase's latitudinal distribution is close to the cosine of the local latitude. In sol-

Card 1/2

POTAPOVA, N. I

Г. М. Бартенев

Внезапные затухания коротких радиоволн в ионосфере. Статистика наблюдений за время с 1938 по 1957 гг

В. Е. Каменецкий

Методы безимпульсного [illegible] зондирования [illegible] слоев ионосферы

Г. В. Васильев,
Ю. В. Кушнеревский

Ионосферная станция ручного управления с механическим сопряжением настроек передатчика и приемника

11 июня
(с 10 до 16 часов)

Е. Л. Фейнберг,
А. Д. Петровский

О приближенном граничном условии в теории распространения радиоволн вдоль земли

С. М. [illegible] (Чехословакия)

Измерение эффекта Допплера третьего советского искусственного спутника Земли

[illegible]

В. А. [illegible]

Исследование [illegible] движений в ионосфере

Н. И. Потапова

Спорадический слой E по наблюдениям на станциях Советского Союза за период Международного геофизического года

И. С. [illegible],
А. В. [illegible]

Отражение радиоволн миллиметрового диапазона от слоя снега

11 июня
(с 18 до 22 часов)

В. С. [illegible] (США)

Применение тропосферного распространения УКВ для целей многоканальной радиосвязи и телевидения

П. М. Трифонов

Исследование дальнего приема телевизионных и других сигналов на УКВ

И. Ф. [illegible]

Дальний и сверхдальний прием телевизионных сигналов

67

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June. 1959

FRIDMAN, V.G.; POTAPOVA, N.K.; TROITSKAYA, O.G.; SHAFIROVA, A.S., red.; PECHERSKAYA, T.I., tekhn. red.

[Irkutsk; tourist's handbook]Irkutsk; pamiatka turistu. Irkutsk, Irkuskoe knizhnoe izd-vo, 1961. 86 p. (MIRA 15:11)
(Irkutsk--Guidebooks)

POTAPOVA, N.L., inzh.

Efficiency promoters of the "Krasnyi Aksai" Plant. Trakt. i sel'khozmash. no.2:46-47 F '58. (MIRA 12:3)
(Agricultural machinery industry)

POTAPOVA, N.N.; KIRINA, V.N.; FEDOROVA, Z.M.; POSTNOVA, N.P.; DRUZHKOV, A.N., red.; BAL'CHEVA, S.M., red.; LEONOVA, L.P., tekhn.red.

[Economy of the city of Vladimir; statistical collection] Narodnoe khoziaistvo goroda Vladimira; statisticheskii sbornik. Vladimir, Vladimirskoe knizhnoe izd-vo, 1958. 38 p. (MIRA 12:12)

1. Vladimir (Province) Oblastnoye statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Vladimirskoy oblasti (for Potapova, Kirina, Fedorova, Postnova). 3. Nachal'nik statisticheskogo upravleniya Vladimirskoy oblasti (for Druzhkov).
(Vladimir--Statistics)

GULIN, Vasiliy Mikhaylovich; POTAPOVA, Nina Nikolayevna; YAKOVLEVA, Tat'yana Konstantinovna; IVANOV, P.P., red.PANKRATOV, A.I., tekhn.red.

[Mechanization of secondary and auxiliary operations] Mekhanizatsiia podsobno-vspomogatel'nykh rabot. Ivanovo, Ivanovskoe knizhnoe izd-vo, 1961. 46 p. (MIRA 15:4)
(Textile industry—Equipment and supplies)

SHARKOV, V.I.; DMITRIYEVA, O.A.; POTAPOVA, N.P.

Inclusion of cellulose, swollen in liquid ammonia. Zhur. prikl. khim. 34 no.5:1133-1139 My '61. (MIRA 16:8)

(Cellulose) (Ammonia)

DMITRIYEVA, O.A.; POTAPOVA, N.P.; SHARKOV, V.I.

Comparative study of the supermolecular structure of wood cellulose by the methods of thermal and hydrolytic action. Zhur. prikl. khim. 37 no.9:2083-2085 S '64.
(MIRA 17:10)

DMITRIYEVA, O.A.; POTAPOVA, N.P.; SHARKOV, V.I.

Comparative study of cotton cellulose supermolecular structure by the methods of thermal and hydrolytic treatment. Vysokomol. soyed. 6 no.7:1583-1589 Jl '64. (MIRA 18:4)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S.M. Kirova i Gosudarstvennyy institut gidroliznoy promyshlennosti.

RUTKOVSKIY, M.L.; ANUFRIYEVA, N.A.; KOP'YEVA, O.M.; POTAPOVA, N.V.; KAZAKOV, I.V.

Kinetics of the gaseous boron saturation of nickel. Fiz. met. i metalloved. 12 no.2:217-222 Ag '61. (MIRA 14:9)
(Nickel—Hardening)
(Case hardening)

RUTKOVSKIY, M.L.; ANUFRIYEVA, N.A.; KOP'YEVA, O.M.; POTAPOVA, N.V.

Causes of the linear relation between the thickness of a layer and the length of time in the boron saturation of nickel. Fiz. met. i metalloved. 12 no.2:292-294 Ag '61. (MIRA 14:9)

(Nickel) (Case hardening)

18.7530 1416 2208 1087 26557

S/126/61/012/002/006/019
E111/E435

AUTHORS: Rutkovskiy, M.L., Anufriyeva, N.A., Kop'yeva, O.M. Potapova, N.V. and Kazakov, I.V.

TITLE: Kinetics of gas boriding of nickel

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.12, No.2, pp.217-222

TEXT: Materials such as borides, silicides and carbides satisfy the requirements of high chemical stability and resistance to erosion which technical developments are imposing. No substantial investigation on the rate of boriding has yet been reported and there is some divergence of views on results obtainable (e.g. Ref.10: Zhigach A.F. and others, Metallovedeniye i termicheskaya obrabotka, 1959, No.4, 45; and Ref.11:Weintraub E. Ind. a. Eng. Chem., 1911, 3, 299). The authors have studied the gas boriding of nickel at 900°C using a 1:4-1:10 mixture of boron trichloride and hydrogen. The gas mixture was stored in a cylinder and admitted, at a measured rate, to a 30 mm diameter horizontal quartz reaction tube (in a furnace) which could also be flushed with nitrogen. The flow of the gas mixture was started when the temperature reached 500 to 600°C. Specimens were in the

Card 1/3

26557 S/126/61/012/002/006/019
Kinetics of gas boriding ... E111/E435

form of rectangular 25 x 10 x 2 mm nickel plates, cleaned with emery and washed with alcohol. After thickness measurement with a micrometer the specimens were weighed. The thickness $\Delta\ell$ of metal consumed in the formation of the boride film was taken to be half the difference between the initial and final thicknesses (measured at the centre of the specimen). A linear relation between $\Delta\ell$ (mm) and boriding time (hours) (from attainment of the working temperature, 900°C) was found, $\Delta\ell$ being 0.8 at the maximum of 30 hours. Gas flows of 6, 24 and 96 litres/hour were used, the corresponding weight-gains in g/m^2 hour being 26.6, 54.1 and 99. All flow rates were in the laminar range. From the results the authors conclude that the rate-controlling factor was boron diffusion from the gas phase to the metal surface. In the range studied, the weight-gain rate (i.e. boriding rate) was found to be practically independent of the boron trichloride to hydrogen ratios. This suggests that the trichloride does not participate directly in boriding but forms an active intermediate compound. A check on the weight of nickel lost during boriding showed that it was under 1%, indicating that nickel dichloride is not formed: this is

Card 2/3

Kinetics of gas boriding 26557 S/126/61/012/002/006/019
E111/E435

contrary to the views of Powell. The boride film was found to consist of three layers (probably NiB outside, followed by Ni_3B_2 and Ni_2B) with different microhardness. The inner layer is thinnest. The boundaries between the layers are probably non-borided or weakly borided components, such as carbon, copper, sulphur or silicon. All the boundaries are serrated.
V.K.Kryukova and Z.A.Borisova and M.L.Mironenko participated in the experiments. There are 5 figures and 17 references:
12 Soviet and 5 non-Soviet. The two references to English language publications read as follows:
Laubengayer A.W., Hurd D.T., Newkirk A.E., Hoard J.L.,
J. Am. Chem. Soc. 1943, Vol. 65, 1924
Weintraub E. Ind. a. Eng. Chem., 1911, 3, 299.

SUBMITTED: October 14, 1960 (initially)
January 13, 1961 (after revision)

Card 3/3

26565 S/126/61/012/002/016/019
E073/E335

1.1800

AUTHORS: Rutkovskiy, M.L., Anufriyeva, N.A., Kop'yeva, O.M. and Potapova, N.V.

TITLE: On the Causes of a Linear Relation Between the Thickness of the Layer and Duration of the Process of Borating Nickel

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol. 12, No. 2, pp. 292 - 294

TEXT: In an earlier paper (Ref. 1 - FMM, 1961, 12, 217) the authors and I.V. Kazakov have shown that in borating nickel a linear dependence was observed between the thickness of the metal layers Δl expended on forming the boron film and the time of boron deposition τ for $\Delta l \leq 0.8$ mm. Usually, the curve reflecting the speed of the diffusion process is a parabola, for which the equation $y^2 = f \cdot \tau$ is valid; linear dependence between the thickness of the layer and the time is possible only if the forming film has mechanical defects along which the diffusing substance migrates to the surface of the

Card 1/4

base material. A photograph of a polished microsection of a boride layer is reproduced, from which it is concluded that the linear dependence is not due to mechanical defects of the film since defects at a direction normal to the surface of the specimen were not detected in the film. Comparison of the structure of boride films on nickel and cobalt has shown that they are qualitatively equal in spite of the fact that the increase in thickness of the boride film obeys the parabolic law in the case of cobalt and the linear law in the case of nickel; Figs. 3 and 4 show the dependence of the thickness of the borated layer $\Delta\ell$, mm as a function of time, hrs, for a borating temperature of 900 °C for nickel and cobalt, respectively. It was established that the temperature coefficient of the speed of borating nickel at temperatures above 900 °C was considerably higher than was anticipated on the basis of the exponential time dependence of the diffusion coefficient. If borating was at 1 000 °C the eutectic NiB + Ni_3B_2 with a fusion temperature of 990 °C formed and the specimens

melted off. Formation of this eutectic led to the idea that in the case of the formation of borides being exothermal the linear dependence between the thickness of the borated layer and the time at temperatures not differing greatly from the temperature of formation of the eutectic can be explained as follows. At the surface of the nickel specimens which is subjected to borating there will be concentrational fluctuations; due to the exothermal nature of the process this will lead to a local increase in the temperature in the borated specimen and to the formation of a low melting-point eutectic at these points. The diffusion coefficient at these points will increase instantaneously and this will lead to an overall increase in the diffusion coefficient and will result in a linear dependence between the thickness of the layer and the borating time. Conservation of the parabolic dependence in the case of cobalt is obviously due to the fact that the temperature of formation of the low melting-point eutectic Co-B, which is 1 105 °C, exceeds the borating temperature by 205 °C, whilst in the case of nickel this temperature difference is only

On the Causes of ....

S/126/61/012/002/016/019
E073/E335

90 °C. Thus, the heat released during borating of cobalt is apparently inadequate for producing a low melting-point eutectic at the spots where concentration fluctuations occur and, as a result of this, the parabolic dependence $\Delta\ell = f(\tau)$ is maintained in the case of borating cobalt under the given temperature conditions. There are 4 figures and 4 references: 3 Soviet and 1 non-Soviet. The English-language reference quoted is: Ref. 3 - Brewer, Dwight L. Sawyer et al - J. Amer. Ceramic Soc., 1951, 34, 173.

SUBMITTED: February 28, 1961

SOROKINA, L.S.; POTAPOVA, N.Ya., glavnyy vrach.

Ileus and pregnancy. Akush. i gin. no.3:68-69 My-Je '53. (MLRA 6:7)

1. Akusherako-ginekologicheskoye otdeleniye 1-y gorodskoy bol'nitsy g. Kemerovo. (Pregnancy, Complications of) (Intestines--Obstructions)

5(2)

AUTHORS: Kochergin, V. P., Potapova, O. G. SOV/153-2-3-19/29

TITLE: The Dissolution of Iron in Molten Chlorides of Zinc, Cadmium, and the Alkali Metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 3, pp 406-411 (USSR)

ABSTRACT: In the introduction, papers on this problem are discussed in brief. In this connection investigations on the electrochemical series of various metals are described in detail by Delimarskiy. They are the basis of further investigations. In the present paper the mechanism of the dissolution (corrosion) of iron in molten electrolytes is explained. The rates of the dissolution of iron in salt melts $ZnCl_2$-KCl, $ZnCl_2$-NaCl, $CdCl_2$-KCl, and $CdCl_2$-NaCl at 500° were investigated. The investigations are carried out in dehydrated and in non-dehydrated salt melts. A dry hydrochloric flow was passed through the melt at 500° for the dehydration. It was found that the dissolution of iron in the zinc-containing melts takes place by a displacement of the hydrogen ions, whereas in the melts with $CdCl_2$ hydrogen and

Card 1/3

metallic cadmium are separated. The rate of dissolution of iron may therefore be determined by measuring the separated amount of hydrogen after different periods. The rate of dissolution of iron increases in the following series: $MgCl_2$-KCl < $ZnCl_2$-KCl < $ZnCl_2$-NaCl < $CdCl_2$-KCl < $CdCl_2$-NaCl in the dehydrated and in the non-dehydrated salt melts. The ability of complex formation of the corresponding cations is also reduced in the same series: $Mg^{2+} > Zn^{2+} > Cd^{2+}$ in accordance with the investigations by Lantratov, Alabyshev (Ref 8), and Delimarskiy (Ref 6). The dissolution of iron in molten chlorides therefore depends mainly on the intensity of the complex formation. Figure 2 shows the dependence of the rate of dissolution of iron in the non-dehydrated salt melts on temperature in the range from 500 to 700°. With increasing temperature the stability of the complex compounds decreases; at the same time the degree of hydrolysis of the salts increases and leads to an increase of the hydrogen ion concentration. As a result also the dissolu-

The Dissolution of Iron in Molten Chlorides of Zinc, Cadmium, and the Alkali Metals

tion rate of iron in the melts investigated increases with rising temperature. Figure 3 shows the connection between the rate of dissolution of iron at 500° and the compositions of the melts. A table gives the pH values of the aqueous solutions of the salt melts investigated. The dehydrated melts have a lower pH value since traces of hydrogen chloride remain after dehydration. The authors found that at increased temperature no oxygen of the air is dissolved in the salt melts $ZnCl_2$-KCl and $ZnCl_2$-NaCl. There are 4 figures, 1 table, and 15 references, 12 of which are Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A. M. Gor'kogo Kafedra neorganicheskoy khimii (Urals State University imeni A. M. Gor'kiy, Chair of Inorganic Chemistry)

SUBMITTED: March 10, 1958

Potapova, O.G.

KOCHERGIN, V.P.; KHAYBULLINA, L.G.; POTAPOVA, O.G.

Dissolving iron in molten zinc, alkali metal, and alkali earth metal chlorides. Zhur. neorg. khim. 1 no.11:2617-2622 N '56. (MLRA 10:5)

1. Ural'skiy gosudarstvennyy universitet im. A.M. Gor'kogo, Sverdlovsk.
(Iron) (Chlorides) (Solubility)

POTAPOVA, O.I.

Significance of Lake Nyukkozero in commercial fishing. Trudy Kar. fil.AN SSSR no.13:45-60 '58. (MIRA 13:5)
(Nyukkozero, Lake--Fisheries)

ALEKSANDROV, B.M., nauchnyy sotrudnik; ALEKSANDROVA, T.N., nauchnyy sotrudnik; BELYAYEVA, K.I., nauchnyy sotrudnik; GORBUNOVA, Z.A., nauchnyy sotrudnik; GORDEYEVA-PZHTSKVA, L.I., nauchnyy sotrudnik; GORDEYEVA, L.N., nauchnyy sotrudnik; GULYAYEVA, A.M., nauchnyy sotrudnik; DMITRENKO, Yu.S., nauchnyy sotrudnik; ZABOLOTSKIY, A.A., nauchnyy sotrudnik; MAKAROVA, Ye.F., nauchnyy sotrudnik; NOVIKOV, P.I., nauchnyy sotrudnik; POKROVSKIY, V.V., nauchnyy sotrudnik; SMIRNOV, A.F., nauchnyy sotrudnik; STEFANOVSKAYA, A.F., nauchnyy sotrudnik; URBAN, V.V., nauchnyy sotrudnik. Prinimali uchastiye: BALAGUROVA, M.V., nauchnyy sotrudnik; VEBER, D.G., nauchnyy sotrudnik; POTAPOVA, O.I., nauchnyy sotrudnik; SOKOLOVA, V.A., nauchnyy sotrudnik; FILIMONOVA, Z.I., nauchnyy sotrudnik; POPENKO, L.K., nauchnyy sotrudnik. ZYTSAR', N.A., red.; PRAVDIN, I.F., red.; PANKRASHOV, A.P., red.; SHEVCHENKO, L.V., tekhn.red.

[Lakes of Karelia; natural features, fishes, and fisheries] Ozera Karelii; priroda, ryby i rybnoe khoziaistvo; spravochnik. Petrozavodsk, Gos.izd-vo Karel'skoi ASSR, 1959. 618 p. (MIRA 13:8)

(Continued on next card)

ALEKSANDROV, B.M. --- (continued) Card 2.

1. Russia (1917- R.S.F.S.R.) Karel'skiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. 2. Karel'skoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva (for Aleksandrov, Aleksandrova, Belyayeva, Gorbunova, Gordeyeva-Pertseva, Gordeyeva, Gulyayeva, Dmitrenko, Zabolotskiy, Makarova, Novikov, Pokrovskiy, Smirnov, Stefanovskaya, Urban). 3. Karel'skiy filial AN SSSR (for Balagurova, Veber, Potapova, Sokolova, Filimonova, Popenko).

(Karelia--Lakes)

KUDERSKIY, L.A.; POTAPOVA, O.I.

Blicca bjoerkna (L.) in Lake Lakshozero. Trudy Kar. fil. AN SSSR no.33:38-48 '62. (MIRA 16:2)
(Lakshozero, Lake—Blicca)

PYATKOV, Viktor Anempodistovich; POTAPOVA, Oktyabrina Mikhaylovna; KOROBOVA, E.S., red.; KHLOBORDOV, V.I., tekhn. red.

[Learn to invetn] Uchis' izobretat'. Krasnodar, Krasnodarskoe knizhnoe izd-vo, 1962. 163 p. (MIRA 15:6)
(Technological innovations)

POTAPOVA, R. K.

"Changes of physical fundamental characteristics in combintions of vowels and consonants in German."

report submitted for 5th Intl Cong of Phonetic Sciences, Muenster, W. Germany, 16-23 Aug 64.

RABINOVICH, P.D.; POTAPOVA, R.Ya.

Increasing the accuracy of the quantitative determination of pepsin in the contents of the stomach by means of S.G.Metta's method. Lab. delo 7 no.5:41-43 My '61. (MIRA 14:5)

1. Kafedra gospital'noy terapii (zav. Ya.L.Lur'ye) Chitinskogo meditsinskogo instituta.
(PEPSIN)

POTA:OVA, S.A.

Using the system p-ditolyl phosphate - $CHCl_3$ in the extraction separation of a carrier-free zirconium isotope of mass 95. Radiokhimiia 3 no.4:422-427 '61. (MIRA 14:7)
(Zirconium--Isotopes)

Potapova, S.A.

B-7

USSR/Physical Chemistry - Radiochemistry, Isotopes.

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3731.

Author : M.S. Merkulova, S.A. Potapova, T.S. Shevelkina, V.I. Chastukhina.

Inst :

Title : Distribution of Lead and Radium Isotopes between Solution and Crystals of Anisomorphous Salts.

Orig Pub: Zh. fiz. khimii, 1957, 31, No 5, 1056-1062.

Abstract: The distribution of Pb(ThB) and Ra between the solution and solid phase in K_2SO_4 - $PbSO_4$ - H_2O, K_2SO_4 - $RaSO_4$ - H_2O and K_2CrO_4 - $PbCrO_4$ - H_2O systems was studied at 25 and 100°. The distribution equilibrium was determined in 10 minutes. The crystallization factor D does not depend on the amount of the makrocomponent separated in the precipitate. D is somewhat lower in an acid medium than in a neutral. D depends very much on the temperature. If Bi^{3+} ions were introduced into the sulfate system, or Al^{3+} ions into the chromate system,

-2-

Card : 1/2

MERKULOVA,M.S.; POTAPOVA,S.A.

Distribution of radium among potassium sulfate solutions and crystals. Dokl. AN SSSR 103 no.4:643-645 Ag'55. (MLRA 8:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova. Predstavleno akademikom S.I.Vol'fkovichem
(Potassium sulfate) (Radium sulfate)

L 44280-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5008002 S/0186/65/007/001/0014/0025

20
B

AUTHOR: Potapova, S. A.; Fomin, V. V.

TITLE: Distribution of *n*-dicresyl phosphate between aqueous solutions of nitric acid and various organic solvents

SOURCE: Radiokhimiya, v. 7, no. 1, 1965, 14-25

TOPIC TAGS: dicresyl phosphate, nitric acid, benzene, chloroform, carbon tetrachloride, distribution coefficient

ABSTRACT: This work presents data of cryoscopic investigations of aqueous and benzene solutions of *n*-dicresyl phosphate (*n*-DCP) and its distribution between aqueous solutions of nitric acid and benzene, chloroform and carbon tetrachloride. All studies on distribution were conducted with P^{32}-labeled *n*-DCP. Like dibutylphosphate *n*-DCP showed a great tendency to form dimers in the nonpolar solvents. The value of the dimerization constant of *n*-DCP in chloroform ($K = 0.97 \cdot 10^4$) is close to that in benzene ($K = 1.39 \cdot 10^4$) and is significantly less than the value in carbon tetrachloride ($K = 5.27 \cdot 10^4$) or the *K* for dibutylphosphate in chloroform.

Card 1/2

L 44290-65

ACCESSION NR: AP5008002

The dissociation constant of *n*-DCP is equal to 0.34-0.40 when the ionic strength is 1 and it decreases with an increase of the ionic strength. Distribution coefficients were obtained for monomeric *n*-DCP molecules between organic solvents and aqueous solutions of a nitric acid-lithium nitrate mixture with an overall ionic strength equal to 1.3 and 5. Orig. art. has: 4 figures and 9 tables.

ASSOCIATION: none

SUBMITTED: 06Jan64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 001 OTHER: 002

Card 2/2

POTAPOVA, S.A.; FOMIN, V.V.

Distribution of p-diresylphosphoric acid between aqueous solutions of nitric acid and some organic solvents. Radiokhimiia 7 no.1:14-25 '65. (MIRA 18:6)

POTAPOVA, S.A.

Isolation of carrier-free Y^{90} from the mixture $Sr^{90} + Y^{90}$ by extraction with diarylphosphoric acids. Radiokhimiia 5 no.1:110-114 '63. (MIRA 16:2)
(Yttrium isotopes) (Strontium isotopes)
(Phosphoric acid)

POTAPOVA, S.N.

Onychia nigricans et paronychia induced by the fungus Candida albicans. Vest.derm.i ven. 34 no.3:24-27 My-Je '60. (MIRA 13:10)

(NAILS—DISEASES) (MONILIASIS)

POTAPOVA, S.N. (Leningrad)

Treatment of smallpox scars by means of surface galvano-cautery. Vest.derm. i ven. 34 no.11:39-47 N '60. (MIRA 13:12)

(SMALLPOX)
(ELECTROCOAGULATION)
(CICATRIX surg.)

POTAPOVA, S.N.

Cutaneous anesthesia through electrophoresis in treating pock marks of the face, and saccharomycotic paronychia and onychia. Vop.kur., fizioter. i lech.fiz.kul't. 23 no.5:418-419 S-O '58 (MIRA 11:11)

1. Iz pervoy khozraschetnoy polikliniki Lengorzdravotdela (zav. L.G. Dmitriyev) i kozhno-venerologicheskogo dispansera No.14 (zav. V.I. Vlasova, nauchnyy rukovoditel' P.V. Kozhevnikov).
(PLASTIC SURGERY)
(ANESTHESIA)
(ELECTROPHORESIS)

POTAPOVA, Sof'ya Nikitichna, kand. med. nauk; MILICH, M.V. nauchn. red.; LAGUTINA, Ye.V., red.; RAKITIN, I.T., tekhn. red.

[Advice of a physician-cosmetologist] Sovety vracha-kosmetologa. Moskva, "Znanie," 1964. 47 p. (Narodnyi universitet kul'tury: Fakul'tet zdorov'ia, no.1)
(MIRA 17:1)

POTAPOVA, Sof'ya Nikitichna; ARKHANGEL'SKIY, S.P., red.; BUGROVA, T.I., tekhn. red.

[Paronychia and onychia due to yeast; Candida infection of the nail wall and the nail body] Drozhzhevaia paronikhiia i onikhiia (kandidoz nogtevykh valikov i nogtevoi plastinki). Leningrad, Medgiz, 1962. 122 p. (MIRA 16:3)
(MONILIASIS) (NAILS--DISEASES)

POTAPOVA, S. M.

"The treatment of fungal paronychia and onychia with electrophoresis of zinc sulfate." Leningtad State Order of Lenin Inst for the Advanced Training of Physicians imeni S. M. Kirov. State Sci Res Dermatological-Venereological Inst, Min Health RSFSR. Kuybyshev Dermatological-Venereological Dispensary of the City of Leningrad. Leningrad, 1956. (Dissertations for the Degree of Candidate in Medical Science)

So: Knizhaya letopis', No. 16, 1956

POTAPOVA, S.N.; VLASOVA, V.I., zaveduyushchiya; KOZHEVNIKOV, P.V., nauchnyy rukovoditel'.

Zinc electrophoresis therapy in surface blastomycosis of nails and mantles. Vest.ven.i derm. no.4:31-36 Jl-Ag '53. (MLda 6:9)

1. Kozhno-venerologicheskiy dispanser No.14.
(Blastomycosis) (Cataphoresis) (Nails--Diseases)

EXCERPTA MEDICA Sec 13 Vol 13/11 Dermatology Nov 59

2824. SKIN ANAESTHESIA BY ELECTROPHORESIS IN TREATMENT OF SMALL-POX SCARS ON THE FACE AND YEAST PARONYCHIA AND ONYCHIA (Russian text) - Potapova S. N. - VOPR. KURORT. 1958, 5 (418-419)

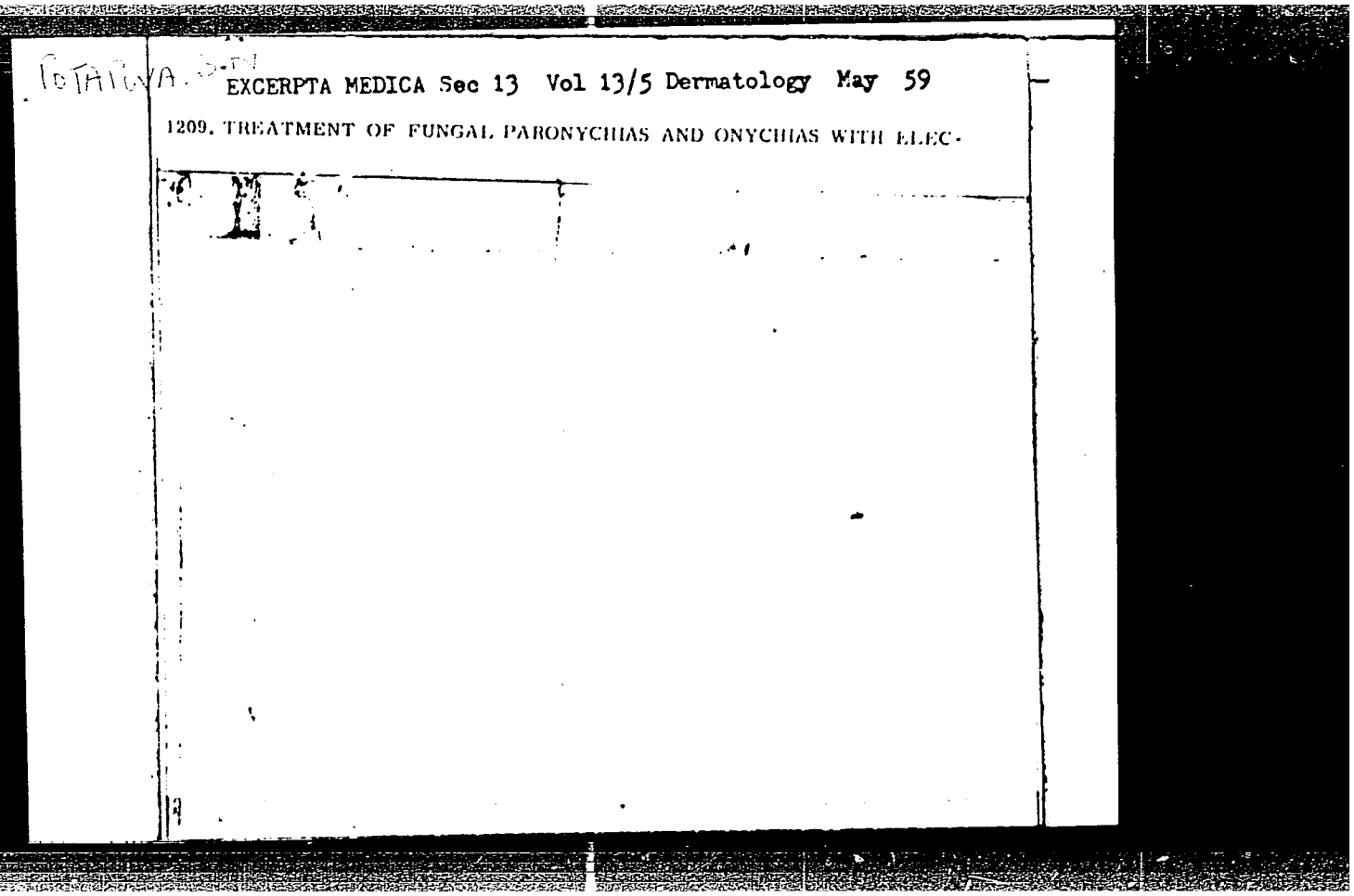
Galvanocauterization was used with the aid of electrophoretic anaesthesia. As an anaesthetic medium a mixture of tetracaine, cocaine and cinchocaine (each 100 mg.) and an adrenaline solution (1:1,000), 1 cu. cm. in 30 cu. cm. distilled water was used. Good results were obtained in 265 procedures. Zakrys - Lublin (IX, 13)

EXCERPTA MEDICA Sec 9 Vol 13/9 Surgery Sept. 59

4990. SKIN ANAESTHESIA BY ELECTROPHORESIS IN TREATMENT OF SMALLPOX SCARS ON THE FACE AND YEAST PARONYCHIA AND ONYCHIA (Russian text) - Potapova S. N. - VOPR. KURORT. 1958, 5 (418-419)

Galvanocauterization was used with the aid of electrophoretic anaesthesia. As an anaesthetic medium a mixture of tetracaine, cocaine and cinchocaine (each 100 mg.) and an adrenaline solution (1:1,000) 1 ml. in 30 ml. distilled water was used. Good results were obtained in 265 procedures.

Zakrys - Lublin (IX, 13)



EXCERPTA MEDICA Sec 13 Vol 13/5 Dermatology May 59

1209. TREATMENT OF FUNGAL PARONYCHIAS AND ONYCHIAS WITH ELEC-

1209

TROPHORESIS OF ZINC SULPHATE (Russian text) - Petrova S. N. Leningrad - NAUCH. TRUDY LEN. INST. USOVERSH. VRACH. 1957, 11 (85-100)

An original method of treatment of paronychias and onychias caused by fungi of the Candida group is elaborated. After a careful preliminary preparation with compresses and removal, where possible, of scales and affected parts of the nail with scissors and scalpel, electrophoresis of 2% zinc sulphate solution is carried out (current of 2-3 ma.; duration 20-40 min.). Cure followed in 159 out of 167 patients treated (95.2%) and in the majority (136 patients) after one application (separately on each finger). The cure covered a period of 4 months up to 3 years and recurrence was noted only in 13 cases. It is concluded that the healing process appears to be the result of a fungistatic action by zinc sulphate and also partially a result of the ensuing desquamative reaction covering a period of 1-2 months and contributing to the eradication of the fungi. Dobrotvorskaya - Leningrad (S)

POTAPOVA, T.A.; TOKAREV, V.V.

Determination of metal content in an aluminum cell with the help of the isotope Au^{198}. TSvet. met. 35 no.7:51-54 Jl '62. (MIRA 15:11)

(Aluminum--Electrometallurgy)
(Radioisotopes--Industrial applications)

SOV/136-59-5-16/21

AUTHORS: Potapova, T.A., and Prokhorov, S.T.

TITLE: Use of Radioactive Indicators in Studying the Distribution and Behaviour of Admixtures in the Production of Alloys (Ispol'zovaniye radioaktivnykh indikatorov dlya izucheniya raspredeleniya i povedeniya primesey pri proizvodstve splavov)

PERIODICAL: Tsvetnyye metally, 1959, Nr 5, pp 78-80 (USSR)

ABSTRACT: The radioactive isotopes Cr^{51}, Cu^{64}, Zn^{65}, Zr^{95} and W^{185} were used in the study of Al alloys. Two methods of radiation detection were used - ionization for control, and radiographic to investigate the distribution of the elements in the alloys. All the alloying elements except Cr were added as master alloys. Cr alloys were made by adding a mixture of equal parts of Cr oxide and cryolite to Al at 1000 °C. The intensity of radiation from 200 g samples was 25 m. curie for Cu^{64} and 5 m. curie for the remainder. The radiographic method measured β-radiation for all the alloys except those containing Zn^{65} although all the elements except Cr^{51} emit both β and γ radiation. The distribution of Zn in Al-Zn alloys was investigated in the cast state and after

Card 1/3

Use of Radioactive Indicators in Studying the Distribution and Behaviour of Admixtures in the Production of Alloys

tempering at 435 °C for 24 hours. It was uniform in both cases. Similar results were obtained for the distribution of Cr in Al-Zn-Mg-Cu alloys. Two alloys of the Al-Zn-Mg-Cu type containing approximately 2 and 0.2% Cu were examined for Cu distribution in the cast state, after homogenising at 430 °C for 17 hours, after hot rolling at 460 °C, after quenching from 470 °C, after heating at 430 °C and slow cooling in the furnace, and after quenching and ageing at 120 °C for 9 hours. On all the radiographs there was a uniform background with individual light spots. The Cu was shown to be in solid solution and not in the grain boundaries by magnifying to 100X. The light spots on the macro radiograph indicate local concentrations of Cu, the quantity and intensity being proportional to the Cu content, and decreasing after thermal and mechanical treatments. It was proposed that they were centres of corrosion in alloys containing more than 1% Cu. Alloys were therefore tested for two weeks in 3% aqueous solution of NaCl and 0.1% H_2O_2.

Card 2/3 Photographs of the surfaces were taken and compared with

Use of Radioactive Indicators in Studying the Distribution and Behaviour of Admixtures in the Production of Alloys

the radiographs. This confirmed that the local concentrations of Cu were indeed the centres of corrosion.

There are 1 figure and 5 references, of which 1 is English, 1 French, and 3 are Soviet.

Card 3/3

L 52631-65 EWT(m)/EPR/EWP(t)/EWP(b)/EWA(h) Ps-4/Peb DIAAP/IJP(c) JD/GS

ACCESSION NR: AT5012704 UR/0000/64/000/000/0040/0044

AUTHOR: Potapova, T.A.; Poleshchuk, T.V.

TITLE: Radioactivation analysis of high-purity aluminum

SOURCE: Vsesoyuznoye koordinatsionnoye soveshchaniye po aktivatsionnomu analizu, 1st, Tashkent, 1962. Trudy. Tashkent, Izd-vo Nauka UzSSR, 1964, 40-44

TOPIC TAGS: activation analysis, aluminum analysis, neutron bombardment, gamma spectrometer, radioisotope separation

ABSTRACT: A method was developed for determining copper, manganese, zinc, gallium, cadmium, iron, and gold in high-purity aluminum. It consists of irradiating aluminum together with standards for the impurities with a flux of 10^{12}-10^{13} neutrons/cm^2.sec. for 20-30 hrs, and the radiometric measurement of the γ radiation from the corresponding isotopes by means of a scintillation counter (NaI(Tl) crystal and FEU-29 photomultiplier). Following irradiation, the isotopes Cu^{24}, Ga^{72}, Fe^{59}, and Mn^{56} are separated radiochemically, and Zn^{69}, Cd^{117}, Cd^{115}, and Au^{198} are separated chromatographically. The sensitivity of the determination of some impurities is as follows: copper, 1 x 10^{-7}%;

Card 1/2

L 52631-65

ACCESSION NR: AT4012704

gold, 2 x 10^{-7}%; gallium, 5 x 10^{-7}%; manganese, 1 x 10^{-6}%; iron, 1 x 10^{-1}%. The accuracy varies between 10 and 50%; thus, the relative error was ± 13% for copper, ± 16% for gallium, and ± 33% for manganese. A complete flowsheet for the separation of the impurities is given. Orig. art. has: 1 figure and 2 tables.

ASSOC: Vsesoyuznyy alyuminiyevo-magniyevyy institut (All-Union Alluminum and Magnesium Institute)

SUBMITTED: 02 Dec. 64 ENCL: 00 SUB CODE: MM, NP

NO REF SOV: 000 OTHER: 000

Card 2/2

SPRYSKOV, A.A.; POTAPOVA, T.I.

Study of the sulfonation reaction. Part I: Determination of isomeric toluenedisulfonic acids. Izv.vys.ucheb.zav.; khim.i khim.tekh. 2 no.1:41-45 '59. (MIRA 12:7)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra organicheskoy khimii.
(Toluenedisulfonic acid) (Sulfonation)

SPRYSKOV, A.A.; POTAPOVA, T.I.

Reactions of sulfonation. Part 55: Sulfonation of toluene to disulfonic acids. Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2: 280-283 '62. (MIRA 15:8)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra organicheskoy khimii.
(Toluene) (Sulfonation)

VARSHURIN, A.A., inzh.; KHLEBNIKOV, N.I., inzh.; SIBAROV, Yu.G., inzh.; FOMICHEV, V.A., inzh.; MELAMED, M.F., inzh.; POTAPOVA, T.I., inzh.; KOLYUZHNYY, G.G., inzh.; TAGIROVA, M.I., inzh.; SHIFMAN, C.I., inzh.; STORTS, A.A., inzh.; VARSHURIN, A.A., inzh., otv. za vypusk; KHITROV, P.A., tekhn. red.

[Safety engineering regulations for operating traction substations and sectionalization posts of electrified railroads] Pravila tekhniki bezopasnosti pri ekspluatatsii tiagovykh podstantsii i postov sektsionirovaniia elektrifitsirovannykh zheleznykh dorog. Moskva, Transzheldorizdat, 1962. 202 p. (MIRA 15:8)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifikatsii i energeticheskogo khozyaystva. 2. TsE Ministerstva putey soobshcheniya (for Khlebnikov). 3. TSentral'nyy komitet profsoyuza (for Fomichev). 4. Moskovskaya zheleznaya doroga (for Kolyuzhnyy). 5. Sverdlovskaya zheleznaya doroga (for Tagirova). 6. Yuzhno-Ural'skaya zheleznaya doroga (for Shifman). 7. Zapadno-Sibirskaya zheleznaya doroga (for Storts).

(Electric railroads--Safety regulations)

POTAPOVA, T.I.; SPRYSKOV, A.A.

Reaction of sulfonation. Part 56: Isomerization of toluenedisulfonic acids. Izv.vys.uch.zav.; khim.i khim. tekh. 5 no.4:594-600 '62. (MIRA 15:12)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra organicheskoy khimii.
(Toluenedisulfonic acid)
(Isomerization)

5(3)

AUTHORS: Spryskov, A. A., Potapova, T. I. SOV/153-2-1-8/25

TITLE: A Study of Sulfonation Reactions (Izucheniye reaktsii sul'firovaniya).
I. Determination of Isomeric Toluene Disulfonic Acids
(I. Opredeleniye izomernykh disul'fokislot toluola)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 41-45 (USSR)

ABSTRACT: During the sulfonation of toluene to monosulfonic acids 3-10% of m-toluene sulphonic acid are formed (Ref 2). With further sulfonation 1,2,5- and 1,3,5-disulfonic acid are produced (Refs 3,4). Up till now only 1,2,4-disulfonic acid was isolated by direct sulfonation of toluene (Ref 1). Altogether four isomers may be formed by sulfonation These are: 1,2,4-; 1,2,5-; 1,2,6- and 1,3,5-disulfonic acids. Their percentage varies according to the conditions of formation. In order to study the quantitative composition of sulphone mixtures, the authors give a description of the properties of some derivatives of the above-mentioned sulfonic acids, and further, the quantitative method of determining isomers devised accordingly. In this connection there are no data available in publications (with few exceptions mentioned in

Card 1/3

reference 4). The isomers were prepared in pure state as acid chlorides according to earlier described methods (Ref 4). Arylamine Salts. This method was chiefly based on the results obtained by semiquantitative determination of the solubility of the salts of eighteen aromatic amines of toluene-sulfonic acids. Table 1 contains the experimental results which permit the evaluation of the solubility in water with an excess of amine chloro hydrate. Further, the authors made a thermal analysis (results given in figure 1). The corresponding melting diagram indicates that chlorides form no double bonds with one another. The system has, however, an eutectic point which corresponds to 74.2% of 1,2,4-toluene disulfonic chloride and occurs at 35°. In conclusion, the authors gave an instruction for the analysis of sulfonic mixtures. Thus, they devised a method of quantitative determination of the four afore-mentioned isomers of toluene disulfonic acids in their mixture in the presence of sulphuric acid. The maximum error amounted to about 1-1.5% of the sum of disulfonic acids. There are 3 figures, 2 tables, and 6 references, 2 of which are Soviet.

A Study of Sulfonation Reactions. SOV/153-2-1-8/25
I. Determination of Isomeric Toluene Disulfonic Acids.

ASSOCIATION: Ivanovskiy khimiko-tekhnologicheskiy institut; Kafedra organicheskoy khimii (Ivanovo Institute of Chemical Technology, Chair of Organic Chemistry)

SUBMITTED: January 23, 1958

Card 3/3

FEDOROVA, V.V.; POTAPOVA, T.I.; KRUZHALOV, B.D.

Preparation and conversion of dimethyl-(4-isopropylphenyl)-carbinol hydroperoxide. Zhur. prikl. khim. 38 no.1:166-170 Ja '65. (MIRA 18:3)

SMIRNOV, G.A.; KHABAKOV, A.V., kand. geol.-mineral. nauk, otv. red.; POTAPOVA, T.S., red.; IZMODENOVA, L.A., tekhn. red.

[Materials on the paleogeography of the Urals; Visean stage] Materialy k paleogeografii Urala; vizeiskii iarus. Sverdlovsk, 1957. 112 p. (Akademiia nauk SSSR, Ural'skii filial, Sverdlovsk. Gorno-geologicheskii institut. Trudy, no.29). (MIRA 11:3)
(Ural Mountains--Paleogeography)

IVANOV, A.A., glavnyy red. [deceased]; MALAKHOV, A.Ye., prof., doktor geol.-min.nauk, red.; FADDEYEV, B.V., kand.tekhn.nauk, red.; POTAPOVA, T.S., red.; FAVORSKAYA, A.P., red.; IZMODENOVA, L.A., tekhn.red.

[Problems in the development of the Bakal mineral region; a collection of papers of the Bakal onference, June 8-11, 1955] Voprosy razvitiia Bakal'skoi rudnoi bazy; sbornik trudov Bakal'skogo soveshchaniia (8-11 iiunia 1955 g.). Sverdlovsk, 1957. 221 p. (MIRA 11:3)

1. Akademiya nauk SSSR. Ural'skiy filial. Sverdlovsk. 2. Chlen-korrespondent AN SSSR (for Ivanov)
(Bakal region--Mines and mineral resources)

BOGACHEVA, V.I.; KOROBEYNIKOVA, A.V.; SHUMILENKO, Ye.P., kand.biol.nauk, otvetstvennyy redaktor; POTAPOVA, T.S., redaktor; IZMODENOVA, L.A., tekhn.redaktor

[Pests and diseases of clover in Sverdlovsk Province and ways of controlling them] Vrediteli i bolezni klevera v Sverdlovskoi oblasti i mery bor'by s nimi. Sverdlovsk, Akad. anuk SSSR, Ural'skii filial, In-t biologii, 1957. 46 p. (MIRA 11:2)
(Sverdlovsk Province--Clover--Diseases and pests)

SHVARTS, S.S.; PAVLININ, V.N., kand.biol.nauk, otv.red.; POTAPOVA, T.S, red.; SERED[illegible]KINA, N.F., tekhn.red.

[Some problems with regard to species in terrestrial vertebrates] Nekotore voprosy problemy vida i nazemnykh pozvonochnykh zhivotnykh. Sverdlovsk, 1959. 130p. (Akademiia nauk SSSR. Ural'skii filial, Sverdlovsk. Institut biologii. Trudy, no.11). (MIRA 13:4)

(Species) (Vertebrates)

POTAPOVA, T.V.; SVITSYN, R.A.; ZHIGACH, A.F.; LAPTEV, V.T.; PERSIANOVA, I.V.; SOROKIN, P.Z.

Effect of a carborane ring on the properties of some C-derivatives of the carborane (2, 10) series. Zhur. neorg. khim. 10 no.9:2080-2083 S '65. (MIRA 18:10)

POTAPOVA, T.V.; CHAYLAKHYAN, L.M.

Behavior of electrotopic potential in stretching frog muscle fibers. Biofizika 10 no.6:1021-1029 '65.
(MIRA 19:1)

1. Institut biologicheskoy fiziki, Moskva. Submitted June 22, 1965.

POTAPOVA, T.V., inzh.; POLYAKOV, S.V., prof., doktor tekhn. nauk

Stability of lime concrete under repeated loads. Stroi. mat. 11 no.6, 13-14 Je '65. (MIRA 18:7)